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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/757,144	01/14/2004	Donald A. Milne III	3073.013	3945

37999 7590 02/13/2007  
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EXAMINER
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ABDI, AMARA

ART UNIT	PAPER NUMBER
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2609

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	02/13/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

## Office Action Summary

Application No.

10/757,144

Applicant(s)

MILNE ET AL.

Examiner

Amara Abdi

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 07 August 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-27 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-27 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 14 January 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date 09/06/2006.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### *Specification*

1. The disclosure is objected because of the following informalities:  
(1) Page 8, Paragraph [0034], line 5, **400** after " 400 digitizes" should be deleted  
Appropriate correction required.

### *Claim Objections*

2. Claims 2-8,10-19,21, and 23-27 are objected to because of the following informalities:  
(1) Claim 2, line 1, "an image recognition" should be "**the** image recognition", and the same informalities were found in all of the following claims, on line 1 for each claim:  
3,4,5,6,7,8,10,11,12,13,14,15,16,18,19,24,25,26 and 27  
(2) Claim 3, line 3, "a two-dimensional image" should be changed to "**the** two-dimensional image".  
(3) Claim 4, line 3, "a digitized two-dimensional image" should be changed to "**the** digitized two-dimensional image".  
(4) Claim 5, line 3, " a database" should be changed to "**the** database".  
(5) Claim 6, line 2, "a three dimensional image" should be changed to "**the** three dimensional image"  
(6) Claim 7, line 2, " a three dimensional image" should be changed to "**the** three dimensional image".

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(7) Claim 10, line 2, "a server" should be changed to **"the server"**

(8) Claim 11, line 3, "a three dimensional image" should be changed to **"the three dimensional image"**; on line 5, "a plurality" should be changed to **"the plurality"**; and On line 7, " a database" should be changed to **"the database"**

(9) Claim 14, line 2, "a network" should be changed to **"the network"**

(10) Claim 15, line 2, "a server" should be changed to **"the server"**

(11) Claim 17, line 4, " a three dimensional image" should be changed to **"The three dimensional image"**, and on line 5, " first" should be inserted before " processor"

(12) Claim 21, line 1, "a method of identifying" should be changed to **" The method of identifying"**, and the same informality were found in claim 22, line 1

(13) Claim 23, line 7, " a CPU" should be changed to **"the CPU"**

(14) Claim 25, line 3, "image" should be inserted between " 3D" and " Capture station", and also on line 3, " a plurality" should be changed to **" The plurality"**

Appropriate correction is required.

### ***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application

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by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

4. Claims 1-7,9,16, and 20-22 are rejected under 35 U.S.C. 102(e) as being anticipated by Geng (US PG PUB 2003/0123713).

(1) Regarding claim 1:

as shown in figure 1, Geng disclose an image recognition system comprising:

means for capturing a three dimensional image;(paragraph [0015], line 3-4)

means for parsing said three-dimensional image into a plurality of

two- dimensional images; (paragraph [0015], line 4-5) and

means for comparing (104 in figure 1) at least two of said two-dimensional images to a

database of a plurality of two-dimensional images (Paragraph [0015], line 5-8), and

(paragraph [0047], line 3-4)

(2) Regarding claim 2:

an image recognition system further comprising:

means for displaying a result (101 in figure 1) of said comparison

(Paragraph [0046], line 8-10)

(3) Regarding claim 3:

an image recognition system according, wherein said means for

comparing comprises: means for digitizing a two-dimensional image.

(Paragraph [0043], line 5-8), and (Paragraph [0048], line 7)

(4) Regarding claim 4:

an image recognition system wherein said means for comparing further comprises:

means for storing a digitized two-dimensional image (paragraph [0083], line 1-2),

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(paragraph [0015], line 6), and (abstract, line 5), (The examiner interpreted the enrolment in paragraph [0015] as to "insert or register" something, or "enter in the list ", which is inherent to storing something)

(5) Regarding claim 5:

An image recognition system, wherein said means for comparing further comprises:  
means for searching a database of two-dimensional images

(Paragraph [0047], line 4-5), (The examiner interpreted that a search engine is inherent to the means for searching a database recited in the claim)

(6) Regarding claim 6:

An image recognition system according, wherein said means for  
capturing a three dimensional image comprises at least one of a visual optical digital  
camera, a digital video camcorder, an infrared camera, and a webcam

(Paragraph [0047], line 1), and (paragraph [0048], line 5-7), (The examiner interpreted that a three dimensional cameras in paragraph [0048] is the same as a visual optical digital camera recited in the claim 6)

(7) Regarding claim 7:

An image recognition system, wherein said means for capturing a three dimensional  
image comprises: a fingerprint scanner (paragraph [0048], line 7)

(8) Regarding claim 9:

An image recognition system comprising:

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An image peripheral (paragraph [0047], line 1-2), (The examiner interpreted the surveillance camera as an image peripheral, which is connected to a computer to provide communication as input or output)

A processor system connected to said image peripheral, wherein said processor system constructs and captures a three dimensional image from signals received from said image peripheral (paragraph [0048], line 9), parses said three dimensional image into a plurality of two-dimensional images (paragraph [0015], line 4-5), and compares at least two of said plurality of two-dimensional images to a database of two-dimensional images (Paragraph [0015], line 5-8), and (paragraph [0047], line 3-4)

(9) Regarding claim 16:

An image recognition system, wherein said image peripheral comprises at least one of a visual optical digital camera, a digital video camcorder, an infrared camera, and a webcam, (paragraph [0047], line 1-2), (The examiner interpreted an image peripheral as a device connected to computer to provide communication, so it the same as the surveillance camera)

(10) Regarding claim 20:

a method of identifying images comprising the steps of:

capturing a three-dimensional image (paragraph [0015], line 3-4)

parsing said three-dimensional image into a first plurality of two-dimensional images (paragraph [0015], line 4-5); and

comparing at least two of said first plurality of two-dimensional images to a second plurality of two-dimensional images (paragraph [0047], line 3-4)

(11) Regarding claim 21:

a method of identifying images further comprising the step of:  
displaying a result of said comparison (Paragraph [0046], line 8-10)

(12) Regarding claim 22:

a method of identifying images further comprising the step of storing the captured three-dimensional image database (paragraph [009], line 3-4), (the examiner interpreted that the method of storing a three dimensional image in database is the same as the storing of two dimensional image in database)

### ***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 8,10-15, and 17-19, and 23-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Geng in view of Capazario et al. (US PG PUB 2003/0154141)

(1) Regarding claim 8:

Geng disclose all of the subject matter as applies above

However Geng does not describe an image recognition system where means for comparing comprises a server as recited in claim 8.

However Capazario et al. teaches a system where means for comparing (paragraph [0083], line 6) which comprises a network server (paragraph [0014], line 3)



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One skilled in the art would have clearly recognized a mean for comparing the new plonogram with the initial plonogram (the examiner interpreted that the system comparing the 2D image with a database is inherent to the system comparing a new plonogram with the initial plonogram) (paragraph [0083], line 5-8). Therefore it would have been obvious to one in ordinary skill at the time of the invention to combine the system of Capazario et al., which comprise a server in the means for comparing in the system of Geng because such feature will allowed the images collect in central computer at given location to be shared by wide area network, such as the internet, thereby providing access to regional or global image information as well as it can be used in stores for the management inventory the system can determine the identity and the quality of the goods that are needed. Depending on the inventory and availability of any product, the server may adjust the plonogram to take the day's sale into account. (Paragraph [0088], line 16-20)

(2) Regarding claim 11:

Geng disclose all of the subject matter as applies above.

However Geng does not describe a first processor for constructing and capturing a three-dimensional image and a second processor for comparing at least two of plurality of two-dimensional images to a database of two-dimensional images as recited in Claim 11

However Capazario et al. teaches an image recognition system which comprises a first microprocessor adapted to receive input corresponding to visual report (it's inherent to the first processor of Gen with receives the three dimensional image from the image

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peripheral), and a second processor receiving and processing the data (it's inherent to the second processor of Geng) (paragraph [0020], line 1-7)

One skilled in the art would have clearly recognized that an image recognition system includes a microprocessor device adapted to receive the input data (three dimensional image) and a central computer for receiving and processing the data (comparing the images) (see the abstract) and (paragraph [0083], line 6-8)). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the system of Capazario et al. which comprises a first microprocessor to receive the input data (image) and second processor in central computer for processing the images (comparing) in the system of Geng for an image recognition because such system can be used in big stores for the management inventory, so it can automates a very large portion of the inventory control (first processor) and can place it in a centralized location ( second processor), and it can control the ordering and delivery system

(Paragraph [0042] line 3-4 and line 20)

(3) Regarding claim12 and 13:

Geng disclose all of the subject matter as applies above.

However, Geng does not disclose a system, which comprises a first processor and second processor connected to each other through a network as recited in claim 12, where the network comprises a high-speed network as recited in claim 13.

However, Capazario et al. teaches an image recognition system which comprises a first microprocessor and a second microprocessor (paragraph [0020], line 1-7) connected to

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each other via the Local Area Network (LAN) or Wide Area Network (WAN) (paragraph [0012], line 8-12).

One skilled in the art would have clearly recognized that the video camera, which comprises a first processor, is fed through the network (LAN) or (WAN) to a computer located in the store, which comprises a second processor (paragraph [0042], line 8-11), and one skilled in the art would have clearly recognize that the (LAN) or (WAN) could be a high speed network, such DSL or dial high speed internet. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to add the system of Capazario et al which comprises a first and second processor connected to each other through the network in the system of recognition of Geng because such system can be used in retail stores for the management inventory, and it eliminates the use of handwritten documents and the inventory can be available to another manager stores within the same company in different places through the network, (the internet for example) as well as the usage of DSL as high speed internet will make the connection faster.

(4) Regarding claim 14:

Geng disclose all of the subject matter as applies above.

However, Geng does not disclose an image recognition system wherein said image peripheral and processor system are connected to each other through a network as recited in claim 14.

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However Capazario et al. teaches a system where the processor system and the video camera (the Examiner interpreted the video camera as an image peripheral) are connected via Local Area Network (LAN) or Wide Area Network (WAN) (Paragraph [0012], line 8-12) and (paragraph [0013], line 3)

One skilled in the art would have clearly recognize that the image can be transmitted to any computer through the Local Area Network (LAN) or a Wide Area Network (WAN), and once the images are sent to the computer it will process the information using a real time image recognition software (paragraph [0042], line 8-13). Therefore, regarding claim 14, it would have been obvious to one of ordinary skill in the art at the time of the invention to add the system of Capazario et al. which comprises a Network in the system of Geng which comprises a processor system and an image peripheral, because such feature will be useful for example for the homeland security department to take images at the sensitive places such as the airports and make them available to the police department via a network as well as this system could be used in stores as the video imaging inventory management, it allows stock management to be done in number of different locations and it removes the need of personnel at every store location (paragraph [0042], line 2-4).

(5) Regarding claims 10 and 15:

Geng disclose all of the subject matter as applies above.

However, Geng does not disclose an image recognition system where the processor comprises a server as recited in claim 10, or the second processor comprises a server as recited in claim 15

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However Capazario et al. teaches a system where the second processor (it's inherent to a processor) (paragraph [0020], line 5-7) comprises a server (Paragraph [0014], line 1-3)

One skilled in the art would have clearly recognized that the system permits downloading data from the individual computers (which comprises a second processor into a central server database (paragraph [0054], line 13-15). Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to combine the system of Capazario et al. where the second processor comprises a server, in the image recognition system of Geng because such system will allowed different users (operators) to accesses the data or the images in different locations within the same company through the server.

(6) Regarding claim 17:

Geng disclose all of the subject matter as applies above.

However, Geng does not disclose an image recognition system, which comprises a capture station comprising an image peripheral, a first processor and a first memory, and an image identification station comprising a second processor and a second memory as recited in claim 17.

However Capazario et al. teaches a system which comprises video camera (paragraph [0012], line 1-2), (The examiner interpreted an image peripheral as a video camera), and a capture station (paragraph [0014], line 1), (The examiner interpreted a capture station as the handled computer) which comprises a first processor and first memory (paragraph [0020], line 4-5) and an image identification station (paragraph [0014], line

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2), (The examiner interpreted an image identification station as a central computer) which comprises a second processor and a second memory (paragraph [0059], line 1-6) which comparing the static photo (two dimensional image) to the facial image being sent over time video ( database of two dimensional images) (paragraph [0061], line 4-5) One skilled in the art would have clearly recognize a system comprising a first computer (paragraph [0054], line 7-9) (an image capture station) with a first processor and first memory (paragraph [0020], line 1-3) and a central computer (an image identification station) with a second processor and second memory (paragraph [0054], line 13-15) for comparing the new plonogram (plurality of two dimensional images) with the initial plonogram (database of two dimensional images) (paragraph [0083], line6-8).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the system of Capazario et al., which comprises an image capture station (first computer) comprising a first processor and first memory and an image identification station (central computer) comprising a second processor and second memory in the image recognition system of Geng because such system allowed the data to be processed (the data could be any image 3D or 2D) in the first computer then downloading the results into a central computer which will be processed by second processor.

(7) Regarding claims 18 and 19:

Geng disclose all of the subject matter as applies above.

However, Geng does not disclose a system comprising an intranet where the image capture station and the image identification station are connected through the intranet

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as recited in claim 18, and said intranet comprises a wireless network as recited in claim 19

However Capazario et al. teaches an image recognition system which transfers the stored data from the held hand computer (Paragraph [0068], line 4-6) (The examiner interpreted the hand computer as the image capture station) to a processing system on another computer (paragraph [0068], line 6), (The examiner interpreted the second computer as the image identification station) as well as the two computers can communicate with each other via a Wireless Local Area Network (LAN) (Intranet) (Paragraph [0068], line 8-9)

One skilled in the art would have clearly recognize an image recognition system comprises a Local Area Network (Intranet) (paragraph [0068], line 8) where the band held computer (image capture station) (paragraph [0067], line 3) and a processing system on another computer (image identification station) (paragraph [0068], line 6) are connected via Wireless Local Area Network (LAN) (paragraph [0068], line 8-9).

Therefore it have been obvious to one in ordinary skill at the time of the invention to combine the system of Capazario et al. which comprise a Wireless Local Area Network (Intranet) in the image recognition system of Geng, because such system can transmit an images to PDA/PC on any station for different users using the existing or next generation wireless and cellular technology (paragraph [0088], line 22-24)

(8) Regarding claim 23:

Geng disclose all of the subject matter as applies above.

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Furthermore, Capazario et al. disclose an image capture station (paragraph [0014], line 1) comprising a CPU and an image peripheral (paragraph [0012], line 1-2), and an image identification station comprising a CPU (paragraph [0014], line 2)

However Geng and Capazario et al. do not disclose an image recognition system which comprise an intranet, and a database server connected to the intranet, furthermore they do not disclose that the 3 D image capture station and the 2D image identification station are connected to the intranet as recited in claim 23.

However Lestideau teaches face detection in color images in cluttered scene captured on a digital image (abstract), where the application program may be supplied to the user through a computer readable card such as PCMCIA card and the Internet and intranet including email transmission (paragraph [0048], line 9-12)

One skilled in the art would have clearly recognized the image recognition system, which comprises an intranet where it connects the information (captured images), and the database server (paragraph [0048], line 1-11). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the system of Lestideau, which comprises an intranet in the image recognition system of Geng and Capazario et al., because such feature will improve the communication and system and the transmission of the image from the user to another user using a wireless medium such as an exemplified in the GSM mobile telephone system. (Paragraph [0043], line 12-13).

(9) Regarding claims 24,26 and 27:

Geng disclose all of the subject matter as applies above.



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However, Geng does not disclose an image recognition system where the 3D image capture station comprises a video server connecting the image peripheral (or plurality of image peripheral) to the CPU as recited in claims 24 and 27, where the video server is connected the CPU through a wireless connection as recited in claim 26.

However Capazario et al. teaches a system where the video server (paragraph [0012], line 2) connecting the image peripheral (paragraph [0012], line 4) to the CPU (paragraph [0012], line 9), (the examiner interpreted the video camera as the video server which is connecting the camera (or pluralities of cameras) to the computer or CPU), where the connection is made through a wireless connection (paragraph 0042], line 9-11), (the examiner interpreted LAN or WAN as a wireless since it has the internet)

One skilled in the art would have clearly recognized the image recognition system, where the video server connects the camera or many cameras to the computer via wireless (paragraph [0042], line 7-13). Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the system of capazario where the video server is connecting the camera or many cameras to the computer in the image recognition system of Geng because such feature could be used in the surveillance system for example in the banks or a big companies where the camera is trained in every corner of the building and connected to the computer via a network or wireless, so the image can be seen by the security guards in any place of the building as well as in other places outside of the building, for examples the police station can have the image surveillance of any bank without being inside the bank.

(10) Regarding claim 25:

Geng further disclose an image recognition system, wherein said 2D image identification station (paragraph [0015], line 4-5) compares at least two two-dimensional images received from 3D capture station to a plurality of known two-dimensional images. (Paragraph [0015], line 5-8), and (paragraph [0047], line 3-4)

### **Conclusion**

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Shirato (US PG PUB 2004/0189876) discloses a remote video recognition system applied to a surveillance system and capable of outputting and displaying a video produced by an imaging means.

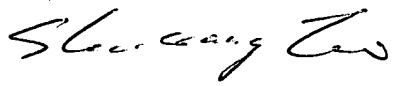
8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Amara Abdi whose telephone number is (571) 270-1670. The examiner can normally be reached on Monday through Friday 7:30 Am to 5:00 PM E.T..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Shuwang Liu can be reached on (571) 272-3036. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Amara Abdi  
12/28/06

  
**SHUWANG LIU**  
**SUPERVISORY PATENT EXAMINER**